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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/660,824	09/13/2000	Alan Rowe	103.1046.01	7793

			EXAMINER
22883	7590	04/23/2004	HOANG, PHUONG N

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ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 February 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1 - 47</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1 - 47</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1 – 47 are pending for examination.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3.   **Claims 1 – 5, 8 – 14, 16 – 19, 21 – 26, 29, 33 – 35, 37 – 40, 42, are rejected**

under 35 U.S.C. 102(e) as being anticipated by French, US patent no. 6,341,312.

4.   French was cited in the last office action.

5.   **As to claim 1**, French teaches a method of operating a file server, comprising

the steps of:

        receiving a CIFS request (CIFS client access network files system, col. 3 lines 25

– 50);

        recording state at that time about the request (state information with respect to

the server to which the user is connecting, col. 5 lines 35 – col. 6 line 10);

        restoring state upon reboot as last recorded (reconnect without requiring the user

to re-enter information, col. 5 and col. 6 lines 1 – 26);

        attempting to continue the CIFS session that the request was part of (reestablish

the connections, replays the connections, col. 6 lines 20 – 48).

6.   **As to claim 2,** French teaches the steps of acknowledging receipt of the CIFS

request; processing the CIFS request (session establishment request is stored

…."permanent", col. 6 lines 5 – 10).

7.   **As to claim 3,** French teaches the step of recording state includes determining

automatically whether the processing of a CIFS request is at a point where the state can

be reliably recorded (it is inherent in maintaing state information).

8.   **As to claim 4,** French teaches the step of recording state occurs at points based

or the progress of processing of a CIFS request (CIFS, col. 3 lines 25 – 50).

9.   **As to claim 5,** French teaches the step of wherein the state is recorded to a non-

volatile storage (saved to disk, col. 6 lines 43 – 45).

10.   **As to claim 8,** French teaches the step of recording state further comprises the

step of determining whether the server shutdown was elective or non-elective (an

interrupt .... test outcome is negative or positive, col. 6 lines 10 – 20).

11.   **As to claim 9,** French teaches the step of determining whether the server

shutdown is elective or non-elective is a function of a flag (test, col. 6 lines 10 – 20)

value stored in the nonvolatile storage (inherent).

12.   **As to claims 10 and 11,** French teaches the step of the flag value indicates the

server shutdown was elective (positive or negative, col. 6 lines 10 – 20) or non-elective.

13.   **As to claims 12 and 16,** French teaches the step of wherein the step of

recording state further comprises the step of determining whether recovery will be

accomplished by rebooting the affected server (the machine is rebooted, col. 6 lines 40

– 45) or takeover by another server.

14.   **As to claims 13 and 17,** French teaches the step of recording state further comprises the step of determining whether recovery will be accomplished by rebooting the affected server (the machine is rebooted, col. 6 lines 40 – 45) or takeover by another server is a function of the flag value (the test outcome, col. 6 lines 10 – 20) stored in the non-volatile storage (inherent).

15.   **As to claim 14,** French teaches the step of the flag value indicates the recovery will be accomplished by rebooting the affected server (if the outcome is positive, the routine reconnect the client to the server, col. 6 lines 15, 45).

16.   **As to claim 18,** French teaches wherein the reboot comprises the steps of:

    rebooting the affected server's operating system (the machine is rebooted, col. 6 lines 40 – 45); and

    rebuilding in-memory data structures (inherent when the data structures is saved in a disk such that when the machine is rebooted, col. 6 lines 40 – 48) to the state prior to the reboot.

17.   **As to claim 19,** French teaches the step of wherein the rebuilding in-memory data structures further comprises fetching the state stored in the non-volatile storage (inherent in a computer) to rebuild the in-memory data structures (inherent when the data structures is saved in a disk such that when ..... rebooted, col. 6 lines 40 – 48).

18.   **As to claim 21**, French teaches the method of claim 1, wherein the step of

attempting to continue the CIFS session that the request was part of further comprises

the step of processing the remaining portion of the uncompleted request (replays the

connections, col. 6 lines 20 – 48).

19.   **As to claim 22**, this is the apparatus claim of claim 1. See rejection for claim 1

above.

20.   **As to claims 23 – 26,** see rejection for claims 2 – 5 above.

21.   **As to claim 29,** see rejection for claim 8 above.

22.   **As to claims 33 – 35,** see rejection for claims 12 – 14 above.

23.   **As to claims 37 - 40,** see rejection for claims 16 – 19 above.

24.   **As to claim 42,** see rejection for claim 21 above.

Claim Rejections - 35 USC § 103

25.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

26.   Claims 6, 7, 27 – 28, 30 - 32, are rejected under 35 U.S.C. 103(a) as being

unpatentable over French, US patent no. 6,341,312 in view of Sakakura, US patent

no. 6,334,139.

27.   Sakakura was cited in the last office action.

28.   **As to claims 6 and 7,** French teaches the steps of recording state occurs as part

of an elective reboot (test is negative, col. 6 lines 10 – 25) or elective takeover of a

server further comprising:

    ignoring current CIFS requests (one of ordinary skill in the art can recognize that

the current request should be temporarily ignored after the interrupt occurs and before

trying to process all active requests);

    French does explicitly teach processing all active CIFS requests.

Sakakura teaches processing all requests (re-boots the server B; the processing

system is also restarted, col. 9 lines 22 – 26).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teaching of French to Sakakura's system because

Sakakura's ability processing all requests would provide the system the ability to

complete to process the requests after rebooting to speed up the processing system.

29.   **As to claims 27 – 28,** see rejection for claims 6 – 7 above.

30.   **As to claims 30 - 32,** see rejection for claims 9 – 11 above.

31.   **Claims 43 - 47 are rejected under 35 U.S.C. 103(a) as being unpatentable**

over Delaney, US patent no. 5,996,086 in view of French, US patent no. 6,341,312.

32.   **As to claim 43,** Delaney teaches the non-volatile memory having storage

capable of holding information, the information including the steps of:

Information identifying the state of a first device (status of the servers, col. 6 lines

19 – 25); and

information identifying a flag value, the flag value indicating the character of a

previous operating mode the character identifying a type of server reboot to be affected

(col. 7 line 40 – col. 8 line 10).

Delaney does not teach the step of attempting to continue any active CIFX

sessions.

French teaches the step of attempting to continue any active CIFS sessions

(reestablish the connections, replays the connections, col. 6 lines 20 – 48 and col. and

col. 3 lines 25 - 60).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teaching of Delaney to French's system because

French's CIFS session would provide an additional choice of protocols to the network

for more flexibility and variety of means for accessing to the network system.

33.   **As to claim 44,** Delaney teaches the step of wherein the flag value is capable of

being interpreted to indicate rebooting the first device was an elective function

(fo_mode_stop are initiated by reboot message, col. 8 – col. 9).

34.   **As to claim 45,** Delaney teaches the step of wherein the flag value is capable of

being interpreted to indicate rebooting the first device was a non-elective function

(fo_mode_failed is initiated by reboot message, col. 8 – col. 9).

35.   **As to claim 46,** Delaney teaches the step of wherein the flag value is capable of

being interpreted to indicate takeover of the first device by a second device was an

elective function (col. 8 lines 1 – 10).

36.   **As to claim 47,** Delaney teaches the step of wherein the flag value is capable of being interpreted to indicate takeover of the first device by a second device was an elective function (col. 8 lines 1 – 10).

37.   **Claims 15, 20, 36, 41, are rejected under 35 U.S.C. 103(a) as being unpatentable over French, US patent no. 6,341,312 in view of Chrabaszcz, US patent no. 6,134,673.**

38.   Chrabaszcz was cited in the last office action.

39.   **As to claims 15 and 36,** French does not teach the step of wherein the flag value indicates the recovery will be accomplished by takeover by another server.

Chrabaszcz teaches the step of wherein the flag value indicates the recovery will be accomplished by takeover by another server (instance in which the primary server 102 has failed as indicated by the termination mark 310……detected the failure of the first server 102 …. Server 104 as the backup server, col. 8 lines 60 – col. 9 lines 15) is a function of the flag value stored in the non-volatile storage.

It would have been obvious to apply the teaching of Chrabaszcz to French's system because Chrabaszcz would provide a back up server to keep the system up running and providing services when a system failure occurs.

40.   **As to claims 20 and 41,** French modified by Chrabaszcz teaches wherein the

takeover (Chrabaszcz, server 104 as the backup server, col. 8 lines 60 – col. 9 lines 15)

comprises fetching the stored in the non-volatile storage and rebuilding the in-memory

data structures in another server using the state (French, one of the ordinary skill in the

art can recognize that the data structures has to be rebuild in the in-memory in another

server that has to be server trusted).

Response to Arguments

41.   Applicant's arguments for claims 1 – 47, filed on 2/2/04, have been considered

but they are not persuasive.

42.   Applicant argued in substance that

(1) Applicant argued that the applicant's invention execute code at the server .... nerver

be lost while French teaches a change to the client side code .... Disconnected.

(2) French does not disclose a method for continuing a CIFS session that request was

part of following restoration of state to a server upon reboot, as recited in claims 1.

French creates a new session based on lost session.

(3) French does not appear to determine the type of interruption or whether the interruption is elective or nonelective, as recited in claims 8, 9, 13, 14.

(4) French is discussing the "client side" and not the "server side" as recited in claims 12 and 16.

(5) French does not teach "rebuilding in-memory data structures of the server device" as recited in claims 18, 20, and 41.

(6) French does not disclose "determining whether a server shutdown is elective or non-elective as recited in claims 6 and 7.

(7) There is no indication that it is a flag value as recited in claim 8.

(8) Chrabaszcz or French does not teach maintaining the intergrity of a session during such a takeover sever as recited in claims 20 and 41.

(9) Neither French nor Chrabaszez teaches maintaining a CIFS session across the reboot of a server as recited in claim 44.

43.   Examiner respectfully disagreed with applicant remarks.

As to point 1, examiner found no where in the independent claims that applicant claimed executes code at the server.

As to point 2, French teaches a method for continuing a CIFS session that request was part of following restoration of state to a server upon reboot (when the machine is rebooted, the mechanism can reestablish the connections, col. 6 lines 40 – 48). "Reestablish" or "replay" means that continue. It can not be read as creating a new session. Also, French does not teach creating a new session after being interrupted (col. 6 lines 20 – 48).

As to point 3, French teaches the interrupt is elective or nonelective (an interrupt is ...... positive or negative, col. 6 lines 10 – 20).

As to point 4, claims 12 and 16 depend on claim 1 that claimed the method of operating a file server not at file server.

As to point 5, French teaches rebuilding in-memory data structures (inherent when the data structures is saved in a disk such that when ..... rebooted, col. 6 lines 40 – 48).

As to point 6, examiner sees that applicant argued the limitations that are not claimed in claims 6 and 7.

As to point 7, examiner sees that applicant argued the limitations that are not claimed in

claim 8.

As to point 8, examiner sees that applicant argued the limitations that are not claimed in

claims 20 and 41.

As to point 9, examiner sees that applicant argued the limitations that are not claimed in

claim 44.

Conclusion

44.   Applicant's amendment for claim 43 necessitated the new ground(s) of rejection

presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See

MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in

37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

45.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Phuong N. Hoang whose telephone number is (703)

605-4239. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30

pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (703)305-9678. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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Ph
April 19, 2004

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